UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program : Third Semester – Spring 2023

Paper: Cell Biology Genetics and Evolution Course Code: BOT-205

THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Answer the following short questions:

(10x3=30)

- i. Define evolution.
- ii. What is difference between generalized and specialized transduction.
- iii. What are applications of genetic engineering.
- iv. What is difference between heterochromatin and euchromatin.
- v. Define mutation. What are its types.
- vi. What is difference between starch and cellulose.
- vii. Differentiate between test cross and back cross.
- viii. Draw secondary structure of protein.
- ix. What is difference between glyoxysomes and peroxisomes.
- x. What are purines. Give its types.

Answer the following questions.

(3x10=30)

- Q. 2 What is gene linkage. Give its types.
- Q. 3 a. What is transformation. How it was discovered?
 - b. Explain the functions of plastids.
- Q. 4 What is DNA replication. Explain with help of diagram.